

REMARKS

In response to the Office Action dated October 7, 2004, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims.

All pending claims were rejected under 35 U.S.C. §102, on the grounds that they were considered to be anticipated by the Miyake patent (US 6,188,490). It is respectfully submitted, however, that the Miyake patent does not anticipate, nor otherwise suggest, the claimed subject matter. To reduce the issues under consideration, claims 12-16 have been canceled.

The claimed subject matter is directed to the processing of images for printing, wherein an individual print job may comprise images of multiple documents having different respective sizes and/or orientations. Examples of individual print jobs that comprise documents of different sizes and/or orientations are depicted, for instance, in Figures 8, 11 and 23 of the application. In accordance with various embodiments of the invention, the sizes and/or orientations of the various document images in a print job are taken into account, to determine an appropriate layout for the images on sheets of paper to be printed. Thus, for example, claim 1 recites an image processing apparatus having a processing unit that includes an identifying unit for identifying an area which is not yet covered with document images, and a judging unit for judging whether a new document image, or images, can be laid out in this area. Similar subject matter is recited in each of claims 4 and 5.

In accordance with another aspect of the invention, claim 6 recites a unit for detecting the maximum size of document images based on received image data for an individual print job, and a selecting unit for selecting paper with a size equal to or larger than the detected maximum size. Claim 7 is also directed to this embodiment of the invention.

In accordance with another embodiment, claim 10 recites the detection of the maximum size of document images, and the calculation of a scaling factor that causes the detected maximum size to match with the size of a print area. Claim 11 is also directed to this embodiment of the invention.

It is respectfully submitted that the Miyake patent is not directed to the processing of print information in which an individual print job can comprise image data based on multiple document images of various sizes and/or orientations. Rather, the Miyake patent discloses a processing device which enables multiple document images to be printed on a designated number of pages, in accordance with input from a user. In essence, the user inputs a value P designating the desired number of pages. Based upon this value, and the total number N of images in a print job, the image processing device calculates a quantity n of images per page. This calculated value is then modified, if necessary, to conform to a standard number of images per page. Figures 2A-2E illustrate examples of such standard numbers.

The Miyake patent does not disclose any type of processing that maybe performed if the images are based upon documents of various sizes and/or orientations. For instance, in the example illustrated in Figure 5, each of the document images $g1$ - $g6$ is of uniform size and orientation.

To clarify the nature of the inventive concept, the independent claims have been amended to recite that an individual print job comprises image data based on multiple document images of various sizes and/or orientations. For the reasons presented below, however, it is respectfully submitted that these amendments are not needed to distinguish the originally claimed subject matter from the Miyake patent.

In the rejection of claim 1, the Office Action states that the layout calculating unit E3 of the Miyake patent reads on an identifying unit for identifying an area which is not yet covered with document images. It is respectfully submitted that the disclosure of the patent does not support this interpretation. The patent discloses that the layout calculating unit E3 "calculates layout quantity n per page based on original image quantity N and page quantity P ." It does not disclose that this unit identifies an *area* which is not yet covered with document images.

The rejection also states that the layout quantity assessment unit F3 reads on a judging unit for judging whether new document images can be laid out in the identified area. Again, however, it is respectfully submitted that the patent does not support this interpretation. It discloses that the layout quantity assessment unit assesses whether the calculated layout quantity n matches a standard value. If not, the value n is modified to correspond to one of the standard values. The patent does not disclose that this unit functions to determine whether a new document image can be laid out in an identified area.


With respect to claim 6, the Office Action states that the layout calculating unit E3 reads on a detecting unit for detecting a maximum size of document images. However, as noted above, the patent discloses that the layout calculating unit calculates the quantity of images that are to be printed per page. It does not discuss the maximum size of an image

in connection with such a calculation. Similarly, the patent does not disclose that the layout quantity assessment unit F3 selects paper with a size equal to or larger than the detected maximum size, as alleged in the Office Action.

For at least the forgoing reasons, it is respectfully submitted that the subject matter of the other claims is likewise not anticipated by the Miyake patent. Reconsideration and withdrawal of the rejection is therefore respectfully requested.

Respectfully submitted,
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Date: January 26, 2005

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